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Sustainable Urban Development in India: An Inclusive Perspective

Darshini Mahadevia¹

The mainstream debate on urban development addresses issues of economic growth, and the debate on sustainable cities focuses on environmental problems. Both exclude the development concerns of the poor. A new inclusive approach to sustainable cities in the South puts the perspective of poor and marginalized sectors at the centre of its vision. This chapter presents such a holistic and synergetic approach to sustainable cities in India, and describes the means by which it might be achieved.

Unravelling the Concept: Sustainable Cities in the South

People-centred development, or sustainable human development, has gained increasing acceptance over the last 10 years. It emphasizes that development should be broad-based and bottom-up, redistributive and just, empowering and environmentally sustainable; seeking to meet the needs of the present generation without compromising the ability of future generations to meet their own needs (WCED 1987). In 1992, United Nations Conference on Environment and Development's (UNCED's) Agenda 21 outlined

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programmes that go beyond ecological sustainability to include other dimensions of sustainable development such as equity, economic growth and popular participation. Indeed, the principles of sustainable human development and Agenda 21 are converging.

The concept of sustainable cities is derived from that of sustainable development. The world is becoming increasingly urban—and urbanization is spreading South. Historically, urbanization has coincided with, and has been accompanied by, increased consumption and ecological degradation across the globe. The ecological impact of urbanization in the South has become a major justification for a new development paradigm: that of sustainable cities. It is an amalgamation of various independent processes: the urban environmental movement, the decentralization of local governance and Agenda 21, followed by Habitat II (UNCHS 1996). Prior to Habitat II, urban environmental issues were addressed by very few international efforts, namely: the Sustainable Cities Programme (SCP) and Best Practices Awards; the Urban Management Programme (UMP); the Urban Environment Forum (UEF); the International Council for Local Environmental Initiatives (ICLEI); and the Local Initiative Facility for Urban Environment (LIFE).

The pursuit of sustainable development in cities is set against the backdrop of an increasingly globalized economy dominated by the North. Most countries of the South have had a development model, in the form of structural adjustment programmes (SAPs), imposed upon them by the multilateral funding agencies. These have had adverse impacts on social sectors (Cornia et al. 1987) and on the environment (Reed 1995). SAPs have triggered the privatization and commercialization of infrastructure, and the curtailment of state responsibility for social welfare (Stubbs and Clarke 1996; World Bank 1990; WRI et al. 1996), in both rural and urban areas.

Some have questioned the possibility of achieving sustainable development while the interests of capital dominate over those of people (Clow 1996). The same applies to sustainable cities, and this chapter will review the current debate on the subject, looking specifically at the nature of the urban crisis in India in the context of the SAP and the effectiveness of grassroots action in the country.² The final section presents an inclusive approach and suggests the immediate action required on the main outstanding issues in order to move toward sustainable cities in the South.

² India does not have a specific sustainable cities programme, and policy documents refer to this only in the context of urban environment.

“Sustainable development” and “sustainable cities” are central terms in the rhetoric of development policy. However, there is little consensus as to what has to be sustained, and how this is to be done. The World Commission on Environment and Development–WCED (1987) definition of sustainable development is considered the most comprehensive by some (Redclift 1992; Vivian 1992; Choguill 1996) and mere “environmental managerialism” by others (Clow 1996). Stren (1992) suggests that the very ambiguity of the term draws in a wide range of political and intellectual currents from across the fragmented environmental movement. Chambers (1988) interprets the concept as an ability to create and support sustainable livelihoods for the rural population of the South. This leads back to the fact that it is *unsustainable* development, which emanates from excessive consumption in the North (and from the wealthy of the South) that has eroded rural livelihoods, forcing rural inhabitants to migrate to the towns and thereby adding to the numbers of the urban poor.

Making a structural criticism of the concept of sustainable development, Clow (1996) argues that the current global system is organized around the expansion of capital, an intrinsically unsustainable endeavour. Clow holds that “environmental considerations cannot be ‘tacked on’ as an afterthought to a ‘for profit’ economy” (1996:7). Even the United Nations Development Programme’s (UNDP’s) concept of sustainable human development has been criticized for being “economistic”, for having ideological underpinnings (as it assumes a global system where the North dominates the South) and for not having made the development process gender-sensitive (Hirway and Mahadevia 1996, 1999). Nicholls (1996) criticizes the approach for skirting the issue of existing power structures at global, national and local levels; for seeking to achieve sustainable development within structures that in themselves prevent true bottom-up, participatory, holistic and process-based development initiatives; and for ignoring the reality that self-interested development actors, who perpetuate these unequal power structures, can be found at every level.

Huckle (1996) groups these diverse definitions of sustainable development into two categories: “weak sustainability” and “strong sustainability”. Weak sustainability, supported by conservative and liberal political ideologies, works toward sustainable development within the existing global structure, accepts the free-market ideology (i.e., individual property rights, minimum state regulation and intervention) and looks for techno-managerial solutions. Such

solutions suit the official development aid agencies, including the World Bank and the United Nations Centre for Human Settlements (UN-Habitat). Strong sustainable development accommodates various approaches, namely those of deep ecologists, greens, social ecologists, eco-feminists, postmodernists, political economists and others. They reject the idea that nature and social systems are at the service of economic development, arguing that this bolsters capital rather than people in the development process. Some of them see sustainable development as a political process, while others view it from a moral perspective, suggesting that self-discipline is required to achieve such development.

The concept of sustainable cities can be approached in much the same way. However, uncritical acceptance of the techno-managerial approach of various United Nations urban development programmes is widespread, even in the South. In the early 1980s, for example, UN-Habitat and the United Nations Environment Programme (UNEP) decided to prepare joint Environmental Guidelines for Settlements' Planning and Management (or EPM) for cities. In the early 1990s, this initiative was converted into the joint Sustainable Cities Programme (SCP). The SCP, launched as a vehicle for implementing Agenda 21 at the city level, works toward building capacities in urban environmental planning and management, and promoting a broad-based participatory process. The aim is to incorporate environmental management into urban development decision making and to strengthen local capacities for doing so through demonstration projects.

The way in which "sustainable cities" has been understood in the North has led to environmentally friendly cities or "ecological cities", where: (i) economic and environmental costs of urbanization and urban development are taken into account; (ii) there is self-reliance in terms of resource production and waste absorption; (iii) cities become compact and energy-efficient; and (iv) the needs and rights of all are well balanced (Haughton 1997). Proponents of this line of thinking view urban environmental issues in the South through a Northern lens and so emphasize the reduction of resource consumption, local waste absorption and the use of renewable resources, but ignore the critical issue of meeting basic human needs (Satterthwaite 1998).

Hardoy et al. (1992) hinted at numerous environmental problems in the cities of the South: as an Indian proverb from the state of Gujarat puts it "a weak cow has many bugs". Many of these problems are the result of poverty and the inability of national and

local governments to create institutions to provide sustainable solutions to poverty. They are also the result of a flawed development model, SAP conditionalities and the pressure to achieve rapid economic growth at any cost. In India, for example, the goal of increasing the rate of economic growth has resulted in the acceptance of many types of investment, some of them highly polluting. Transnational companies, such as Toyota, Ford and Mercedes, have been granted permission to produce diesel cars for the Indian market, despite the fact that these produce 10–100 times more particulate matter than do petrol engines, and will lead to more pollution in already congested cities (*Down to Earth* 1999).³ The pursuit of economic growth also creates the need for investment in new infrastructure, which often requires privatization and commercialization of services because city governments are unable to raise revenues in other ways. The poor are often excluded from such commercial ventures.

The SCP and other techno-managerial approaches to sustainable urban development treat the concept of sustainable cities as a partnership among diverse interest groups. But, as Satterthwaite (1996) comments, the Habitat II consensus to move toward sustainable cities and sustainable human settlements is “at best an illusion”, one which allowed the “international agencies to claim that they were the leaders in promoting sustainable cities, when in reality they have contributed much to the growth of cities where sustainable development goals are not met” (1996:31). Different groups gave different meaning to the term, but for cities to be genuinely sustainable, Satterthwaite argues, it is necessary to consider “the underlying economic, social and political causes of poverty or social exclusion” (ibid.:32).

The move toward a sustainable city in the South has to be based on an inclusive approach comprising four pillars:

- environmental sustainability;
- social equity;
- economic growth with redistribution; and
- the political empowerment of the disempowered.

This holistic approach incorporates the interests of the poor and the disempowered, challenging the existing systems, whether global or local, that have led to unsustainable development. An equitable system could achieve sustainable human development that is employment-generating, resource-recycling, waste-minimizing,

³ Diesel cars are cheaper to run than petrol cars. By giving permission to increase the production of diesel cars, the government wants to increase the purchase of cars to improve growth statistics.

socially sustainable and politically just. These four dimensions have to be approached simultaneously in the process of development; at present, one dimension takes precedence over the others within a fragmented and sectoral approach to sustainable development.

In its official programmes, and those undertaken by civil society and private sector organizations, India cannot be said to illustrate anything other than a fragmented and sectoral approach to urban sustainable development. As it must work within the framework of SAPs, the official approach is extremely limited. The initiatives that are described here are those that have received reasonably wide attention from within India and abroad. This does not mean that they are necessarily the most effective efforts going on in India. Undoubtedly, there are many local efforts that remain unknown and unreported outside the communities from which they emerge. Such efforts, however, have not impeded the rapidly worsening urban crisis in India that has accompanied, if not been stimulated by, the structural adjustment programmes implemented throughout the country.

Urban Crises in India: The Context of Structural Adjustment Programmes

India has a low level of urbanization (expected to reach 33 per cent in 2001), but a large urban population in absolute terms (about 330 million in 2001). The country has three of the 20 largest cities in the world (Mumbai, Calcutta and Delhi) and 23 cities of one million-plus inhabitants, housing one third of the total urban population in 1991 (NIUA 1995). Its urban settlement pattern is concentrated in the western and southern parts of the country and there is a high incidence of urban poverty—one person in every three overall (Dubey and Gangopadhyay 1998; GOI 1997), and one person in five in the cities of over one million inhabitants (Dubey and Mahadevia 2001) lives in poverty.⁴ Large cities are the focus of urban policies and programmes (Mahadevia 1999a), though poverty is concentrated in the small towns (Dubey and Gangopadhyay 1999; Dubey et al. 2000), which also have lower levels of basic services than the large cities (Kundu 1999).⁵ The

⁴ In India the varying estimates of poverty derive from disagreements on how to calculate the poverty line. The poverty ratios are calculated on the basis of consumer expenditure surveys. These figures are for 1993–1994, the last year such consumption expenditure surveys were available.

⁵ Small towns are defined as having fewer than 50,000 inhabitants.

latter are integrated into the global system and the smaller towns into the local economy, with no continuum between the two (Kundu 1999). Urban employment has become increasingly informal since the early 1980s (Kundu 1996) as the manufacturing sector has become more capital-intensive, leading to a decline in formal, secondary sector jobs. Researchers attribute the declining rate of urbanization during the 1980s to this phenomenon (Kundu 1996; Mohan 1996). The contribution of the urban sector to the national economy increased from 29 per cent in 1951 to 55 per cent in 1991 (Suresh 2000).

In 1991, India began implementing its SAP. Urban development strategy consequently focused support on rapid economic growth in the place of balanced regional development. The Ninth Five Year Plan (GOI 1998) proposed to address existing regional inequalities by funding infrastructure development in the undeveloped regions, raising resources either from the financial institutions or from the commercial market. As the National Institute of Urban Affairs (NIUA) states:

In the era of economic reforms, liberalization and globalization, cities and towns are emerging as centres of domestic and international investment. Within this framework, urban development policy calls for an approach that aims to optimize the productive advantages of cities and towns, while at the same time minimize or mitigate the negative impacts of urbanization (NIUA 1998:xiii).

During this time of SAP implementation, the focus has been on urban infrastructure. The India Infrastructure Report (Expert Group on Commercialization of Infrastructure Projects 1996) states that Rs. 2,803.5 billion (\$74 billion) will be required in order to meet all urban infrastructure needs by 2005. In 1995, a total of only Rs. 50 billion per year was available, so a strong case could be made to privatize urban infrastructure.

Measures to enhance the attractiveness of cities to new investment have included the deregulation of urban land management. Among the most important initiatives taken in this area was the repeal in 1999 of the Urban Land Ceiling and Regulation Act of 1976, which sought to socialize urban land. Land regulations are being gradually relaxed in some cities (Mahadevia 1999b). While these measure are intended to improve the investment climate in cities, it is argued that efficient land markets are the best way to make land available to the urban poor.

Official Programmes toward the Sustainable City: Limited Vision

Chennai, Hyderabad, Bangalore, Delhi and Calcutta have been directly connected with the SCP. While Chennai was the only Indian partner for the SCP activities, other cities joined the Urban Environment Forum (UEF) that was set up with the SCP as a primary partner. Some cities have received UN-Habitat Best Practice Awards and three belong to the International Union of Local Authorities (IULA). All these efforts are the initiatives of city governments as there is no national programme, only fragmented policies and programmes that come under the sustainable cities umbrella, as well as some city-level initiatives.⁶

Table 2.1 shows the official programmes and the spontaneous efforts to create sustainable cities. The former are mainly centrally designed programmes. Only a few of the local/state government environmental programmes are mentioned here, and these will be discussed below.

Table 2.1: Efforts toward sustainable cities in India

Four pillars	Official efforts	Spontaneous actions
Environmental sustainability	Legal initiatives	Legal initiatives
	Sustainable Cities Programme (SCP)	Protests for environment protection
	Infrastructure projects	Community-based efforts
	Environment management	Private sector initiatives
Social equity	Affirmative action policies	Rights movements
Economic growth with redistribution	Poverty alleviation	Community-based programmes for addressing poverty
	Housing and shelter programmes	
Political empowerment	Urban governance decentralization	NGO-led capacity-building activities

Note: The above initiatives are not all formally recognized as Sustainable Cities Programmes. They would come under the sustainable city concept if they were expanded and made inclusive.

⁶ There is no national urban policy document. Urban policies can be discerned from the Five-Year Plans, annual reports of the Central Ministry of Urban Development and national-level urban policy and research institutes such as the National Institute of Urban Affairs. The Ninth Five Year Plan (GOI 1998) treats urban development under Land, Housing and Basic Services, and is concerned with the growing gap between the demand and supply of basic

Legal initiatives

The first law to address urban environmental issues in India was the Water Pollution (Prevention and Control) Act, passed in 1974. This was followed by the Air Pollution (Prevention and Control) Act of 1981 and the Environment Protection Act of 1986. In 1998, Bio-Medical Waste (Managing and Handling) Rules were introduced to deal with hospital waste.

Another recent piece of legislation is the Motor Vehicles Act (MVA) of 1998, which is being strictly implemented in large cities. It requires that vehicles obtain regular certificates to monitor levels of suspended particulate matter (SPM) and noxious gas emissions. The Act also stipulates the retirement of old vehicles (as defined by the local government) and the manufacturing of motor vehicles according to European standards. In Delhi, vehicles older than 12 years are banned, while Hyderabad has fixed the age limit at 15 years. Mumbai now insists that diesel-run taxis be converted to petrol as a condition of registration. Taxi drivers challenged the legislation, declaring they could not afford the expense of conversion, but the High Court gave them six months to do so. In Delhi, loans have been offered to enable taxi drivers to convert old engines.

The MVA is a key example of the potential conflict of interests between environmental and social needs: it sets improvement in air quality for all against employment for drivers. The retirement of such vehicles from the road can only be done in conjunction with better city planning, the development of efficient and affordable public transport systems, and job creation schemes for taxi drivers. Meanwhile, urban residents in many cities will have to continue to rely on an inefficient public transport system or an increasingly expensive paratransit.

Judging by the pollution levels in Indian cities, environmental legislation has had only limited impact. The Water Act, for instance,

services. The National Institute of Urban Affairs (NIUA) document mentions Agenda 21 as a global action plan to “integrate environmental considerations in the development process” (NIUA 1998:131). It identifies the importance of promoting sustainable human settlement and the initiatives of local authorities. The latter is of particular interest as it calls for interaction, participation and involvement of the community and local authorities in the planning and management of the urban ecosystem. The action areas identified are environmental management, pollution control and environmental protection. The vision of urban development here states that cities and towns have to be economically efficient, socially equitable and environmentally sustainable (NIUA 1998:xiii). The focus is thus on the urban environment rather than on sustainable cities.

has only a limited effect as industrialization in some states is based on industries that cause water pollution.⁷ Similarly, the MVA can only be partially effective because, while diesel vehicles are the main culprits of air-borne pollution, the government is permitting Indian and foreign companies to produce and market diesel vehicles locally.⁸ So, although environmental legislation exists, it will have little impact if economic growth continues to be based on polluting activities.

Sustainable Cities Programme (SCP)

The first city in India to join the UN-Habitat/UNEP SCP was Madras (now Chennai) in 1995. The programme aims to promote local initiatives for environmental management, and to improve the ability of individuals and organizations to identify, understand and analyse environmental issues, and integrate them into sectoral programmes. This effort resulted in the preparation of the 1997 Environmental Profile, based upon city-level consultation, and the framing of Madras Vision 2000. The resulting consensus for improving the infrastructural situation was produced in collaboration with the World Bank.⁹ In Hyderabad City, while the Master Plan 2011 was being designed, an Environmental Planning and Management (EPM) exercise was carried out to identify urban environmental issues for incorporation into the Plan. The Plan proposed the spread of urbanization throughout the state by decentralizing economic development. To this end, the development of small ports and improvement in the financial position of local bodies was proposed, to be funded via an Urban Finance and Infrastructure Development Corporation. Two SCPs in India have concluded that more funds should be sought for city-level infrastructure but, of the 23 metropolises, only Chennai and Hyderabad have carried out EPM exercises.

⁷ In Gujarat citizens' groups have been very active in approaching the Gujarat High Court, seeking legal remedies for water pollution (Mahadevia 1999c).

⁸ This is only partially effective because new vehicles, including diesel ones, arrive with new technology (Reddy 2000).

⁹ In 1996, when UEF was set up, Chennai became a member and took up the Sustainable Madras Project. The critical areas identified for actions under the project were (i) cleaning of main waterways; (ii) shelter and basic services programme for the residents of squatter settlements and tenements; (iii) tackling air pollution; (iv) improving water quality and supply; (v) solid waste management; (vi) managing urban expansion in an ecologically sustainable manner; and (vii) addressing the issue of informal activities. Efforts are at an early stage and strategies are in the process of being framed. Investment figures are therefore not available.

Bangalore and Calcutta are members of the UEF due to their past efforts to take up environmental management programmes. In Bangalore, since 1984, some slums have successfully been relocated with community participation and local non-governmental organization (NGO) help. The Calcutta Metropolitan District (CMD) Environment Management Strategy and Action Plan was prepared with the help of the British Overseas Development Agency (ODA)¹⁰ in the early 1980s. The top priority was the management of solid waste. A pilot project was begun in each of the eight participating municipalities, which entailed collection, transportation and disposal of solid waste through the active co-operation of beneficiaries and local bodies. These pilot projects were successful and the programme has been extended to other municipalities.

Infrastructure projects

Infrastructural development is considered to be key to improving the urban environment. For example, the construction of flyovers and the widening of roads are expected to ease congestion and reduce air pollution. Water supply and sanitation infrastructure are designed to reduce water pollution. These projects are usually funded by international loans; however, only large cities are able to prove that they are creditworthy and they have, therefore, been the main recipients of these loans.

The World Bank has been supporting urban infrastructure projects throughout India since the early 1970s. Cumulative credit to date totals \$1,809.6 million (NIUA 1998) and, in some cities, nearly half the capital budget consists of a World Bank loan (for Ahmedabad, see Mahadevia and D'Costa 1997). Recently, the Asian Development Bank (ADB) also entered the urban arena and committed itself to support projects in Karnataka¹¹ and Rajasthan, give technical assistance for the Calcutta Municipal Environmental Improvement Programme (under consideration) and set up the Urban Environmental Infrastructure Fund.¹²

¹⁰ Now the Department for International Development (DFID).

¹¹ The project has estimated costs of \$132 million (ADB loan \$85 million) and the main focus is to divert economic growth away from rapidly expanding Bangalore city to four selected towns.

¹² This is to assist the Indian government to develop urban and environmental infrastructure in order to leverage private sector and external resources for urban development and environmental improvement, and to prepare suitable projects involving public-private investment for financing under the Fund.

Some foreign agencies advocate the direct participation of the private and commercial sector. For example, the United States Agency for International Development (USAID) sponsors the following.

- The Financial Institutions Reform and Expansion (FIRE) project, which aims to increase private investment in India's long-term debt-market. This project puts emphasis on making the urban environmental infrastructure finance system commercially viable and on improving the capacity of local government to plan, operate, maintain and recover the costs for basic urban services.¹³
- The Technical Assistance and Support Project, which gives grants to organizations engaged in economic policy analysis.¹⁴
- The Programme for Advancement of Commercial Technology.
- Trade in Environmental Services and Technology, which would work toward addressing industrial pollution in India.
- The Centre for Technology Development (Technical Services US-AEP 1997).

The internationally funded Healthy Cities Programme (HCP), supported by WHO, was started in the 1990s to build the local capacity required for integrating environmental health concerns into all major urban policies and programmes, and to take up HCP pilot projects in the five megacities: Mumbai, Calcutta, Bangalore, Hyderabad and Chennai.¹⁵ The estimated cost of the project is \$125 million and its benefits will accrue only to these five cities.

All large cities in India are keen to take up infrastructure projects to improve the urban environment, an area on which funding agencies concentrate. Interestingly, the sums pledged or invested by various donor agencies are insignificant compared to those available from India's internal sources, or compared to the demand projected by the India Infrastructure Report (Export Group on Commercialization of Infrastructure Projects 1996). But these

¹³ Under this project, USAID has pledged \$125 million from the US Housing Guarantee Fund, to be channelled through the financial institutions (NIUA 1998) on condition that matching funds are raised locally.

¹⁴ One of the programmes is support to the Centre for Environmental Planning and Technology (CEPT), an academic institution, to assist city governments in preparing their baseline reports and developing strategies for solid waste management. USAID took the opportunity arising from an Expert Committee Report prepared at the behest of the Supreme Court that gave guidelines for solid waste management in 300 cities with a population of over 100,000 in India in April 1999.

¹⁵ The megacity scheme would make loans available from the fund set aside by central government.

international funding agencies nevertheless exert a strong influence on official programmes; for example, the FIRE project is mentioned in urban policy documents as an important option for raising resources (NIUA 1998). The urban problem is framed in such a manner that lack of finance is viewed as the major impediment to improving urban infrastructure and hence the urban environment. However, the capacity of cities to repay commercial loans, and the impact of such loans on equitable development within the cities, are not mentioned.

Increasing debt does not lead to sustainable development. Cities that borrow at commercial rates have to invest in projects that give immediate returns. Basic service projects that incorporate the interests of the poor cannot give the same returns as commercially viable infrastructure projects. Debt-ridden cities will end up diverting their funds and project-handling capabilities to deliver commercially viable projects, while the poor will continue to live in degraded environments. Since cities have just begun to borrow (mainly from international agencies), the impact of such loans remains to be seen.

Environmental management

Solid Waste Management (SWM) projects dominate among environmental management efforts in India. Some local governments have tried to elicit the support of communities, NGOs and private agencies for such projects. In both Ahmedabad and Mumbai a private company is contracted to compost part of the city waste; in Mumbai, Bangalore and Chennai, NGOs are involved in the collection and disposal of waste on behalf of the city government; in Pune the local government has encouraged housing colonies to decompose their organic waste; and in Rajkot the city government is efficiently collecting solid waste (HSMI/WMC 1996). All these projects began in the early 1990s. In Ahmedabad, the World Bank donated Rs.38 million to modernize SWM, and collection consequently increased by three to four times, though cases where the NGOs and community groups participate in composting garbage cover only a few hundred households (HSMI/WMC 1996). In Andhra Pradesh, the municipal administration has contracted out solid waste collection to the women's groups formed under the government of India's Golden Jubilee Urban Employment Programme (SJSRY) (Rao 2000). This is a holistic approach whereby local communities and government are participating to address environment and poverty issues together. Such initiatives, however, are rare.

Poverty alleviation and shelter programmes

The number and variety of poverty alleviation efforts in the urban areas of India attest to the need for more equitable development. Some of the large-scale and better known efforts are mentioned below. Among the most important is the SJSRY introduced in 1997. Slum improvement programmes are also an important aspect of alleviating poverty, and may reinforce or enhance the impacts of wage and employment programmes if properly linked.

The SJSRY comprises self-employment and wage employment components. The former consists of financial and training assistance to individuals to set up gainful self-employment ventures, and to groups of poor urban women to set up collective ventures under the Development of Women and Children in the Urban Areas component. Financial help takes the form of microcredit from designated banks. Wage employment is to be generated through the creation of public assets by local bodies. If the SJSRY succeeds in generating regular wage employment, poverty may decline; this is less likely if such employment is casual. Throughout the urban sector, poverty is highest among households supported by casual wage labour and self-employment (Dubey et al. 2000; Dubey and Mahadevia 2001). The self-employment component of SJSRY depends on the poor taking out commercial loans from the official banking system on the recommendation of local governments. This does nothing to reduce bureaucracy, which is one of the biggest barriers to poor people accessing formal credit.¹⁶ Moreover, the eradication of poverty through self-employment implies far more than simply providing credit: it includes access to markets and reasonably priced raw materials, and favourable terms of trade for the products. The SJSRY does not address these issues and, therefore, represents a limited approach to urban poverty. Slum improvement, supported by either international development organizations or by local funding, typically includes not only housing improvements, but upgrading of water and sanitation infrastructure as well. Some programmes also provide health care and education facilities, and training for community empowerment. A number of bilateral donors have been involved in such efforts.

¹⁶ The amount of credit extended under the programme is not known, and since the programme began recently it has yet to be evaluated. It is believed that, as with past programmes, the evaluation of the government will be from the perspective of expenditure incurred and not extent of poverty alleviation or eradication (Wadhva 1999).

One such example is the United Kingdom-supported Slum Improvement Project undertaken with the collaboration of the Indian government in seven cities. The programme started in 1983 in Hyderabad and has been extended to Visakhapatnam and Vijayawada, Indore, Calcutta, Cuttack and Cochin since 1988. These projects have been considered successful, especially in the cities of Andhra Pradesh. More recently, an ambitious project proposal from the state government of Andhra Pradesh, covering 32 towns with a population of over 100,000, was approved by the UK government. These projects entail the provision of physical infrastructure, civic amenities and social, economic and educational activities geared at improving conditions in slum areas (Banerjee 1999).

Innovative partnerships for improving the environment in slums are becoming more prominent. Two such programmes are the Slum Networking Programme (SNP) in Indore, Ahmedabad and Vadodara, and the Slum Redevelopment Scheme (SRS) in Mumbai. The SNP in Indore and Ahmedabad received the UN-Habitat's Best Practice Award.

The SNP seeks a 20 per cent contribution from beneficiary households and a 30 per cent contribution from the private sector to connect unserviced slums to the city's infrastructure network. In Indore, one critical review of the impact showed that while the achievements were celebrated in professional circles, reality on the ground was quite different (Verma 2000). In Ahmedabad, the programme showed great promise in 1997 when improvements in 15 slums began (Mahadevia and D'Costa 1997). Since then, however, it has become clear that the pace of improvement is too slow to result in significant changes in the city's more than 3,000 slum settlements. Conflicts among the contributors over amounts of payments, levels of control over the project and security of tenure after the upgrading, have all cast doubt on the long-term viability of the partnership (Tripathi 1998; Kundu 2001). The SRS of Mumbai depends on the high land prices of Mumbai for its success.

With the consent of the slum dwellers, private developers are expected to develop the slum area into a multi-storey residential building in such a way that the marketable area covers the project cost (and makes a profit) after giving free shelter to the original dwellers. The success of this scheme is, and will be, limited as the private developers may not be satisfied with low profits from the scheme. In addition, when land market prices come down—as they have recently—the scheme loses its viability. The early experience

from the city suggests that the scheme has not been a success (Singh and Das 1995:2480; Zaidi 1995).

Decentralization of urban governance

The decentralization of urban governance is a crucial national initiative, and a prerequisite for achieving most of the positive changes foreseen as an outcome of Local Agenda 21 processes. The foundation for India's decentralization efforts is the 74th Constitutional Amendment Act of 1992. The Amendment provides constitutional status to local urban bodies as the third tier of government, enables the participation of women and marginalized groups in government, ensures the existence of local political bodies and sets up a State Finance Commission to recommend guidelines for strengthening the finances of the municipalities. The 74th Amendment also provides for formation of local-level ward committees to deliberate on, and decide matters of, local concern. To date, neither central nor state government have provided the budgetary allocations or revenue generating powers needed to permit these bodies to function as an independent third tier of government.

However, although political empowerment may result in the formulation of more inclusive development strategies at the local level, the withdrawal of the state from the local scene can result in the devolution of significant responsibilities for development directly to local residents. This appears to be what is happening in city-level partnership plans that feature prominently in decentralization schemes, for example, the 20 per cent share of development costs that the SNP collects from the slum dwellers themselves. This represents a significant change from earlier slum improvement programmes. In light of the fact that the participants in the SNP are among the poorest in the city, the logic of the programme may be questioned.

Limited official vision

While local governments continue to provide basic city-level services, our discussion here has only focused on special programmes. The government of India has an important role in framing policies and programmes for sustainable cities, particularly because the very concept is multisectoral, multidepartmental and comprehensive. However, the official vision of sustainable urban development sees it as an environmental issue, linked to the development of infrastructure through independent funding (GOI 1998). This is a simplistic, reductionist approach to the sustainable development of

cities. And, in the process of gaining funding, some government programmes have been influenced by the multilateral and bilateral funding agencies.

The approach of the Indian government does not recognize the other three pillars of sustainable development, despite the fact that poverty, the disempowerment of the majority and poor basic services are serious urban problems. These problems are not regarded as being interrelated or as affecting the quality of the urban environment. That is, poverty alleviation is viewed independently of infrastructure programmes, and the decentralization of governance is not linked with financing of urban development. Most international funding agencies also approach development programmes in a sectoral manner. Given this outlook, it is easy for the funding agencies to support particular programmes without regard to their impact on other sectors. It may not be far from the truth to say that many of the multilateral and bilateral agencies have taken the opportunity provided by the term “sustainable cities” to open up new avenues for business in India in the name of improving the urban environment. We see evidence for this in the fact that Chennai and Hyderabad are demanding more financial support, and that the FIRE project has been accepted as the central government’s official programme for raising commercial funds for urban infrastructure.

Legislation for improving the urban environment has either not been implemented seriously, in part for fear of driving away new investment, or threatens the interests of certain low-income groups. In legal interventions to improve the urban environment like, for example, the MVA, techno-managerial solutions have been advocated. Demands that industries shift to non-polluting technologies have led USAID to promote United States imports under its Trade in Environmental Services and Technology component.¹⁷ Legal initiatives are only part of the solution to urban environmental problems and do not address the question of how to construct an appropriate and sustainable model of development.

Spontaneous Efforts toward Sustainability: Fragmented Efforts

While government efforts are restricted to a few sectors, living conditions are becoming intolerable, and problems of the urban poor

¹⁷ One initiative is the signing of a treaty, to which the Confederation of Indian Industry was party, to facilitate the import of environment-friendly technology from the United States (Banerji 1995).

are not addressed. This situation is leading to spontaneous grassroots actions (see table 2.1), some of which are discussed below.

Legal initiatives

Numerous Public Interest Litigations (PILs) have been filed by individual citizens or citizens' groups seeking legal remedies for industrial pollution (Mahadevia 1999c). The relocation of 9,038 of the 100,000 industries in Delhi, ordered by the Supreme Court, is a landmark judgement in response to a PIL (Shrivastava 1995). The Ganga Action Plan to clean the River Ganga is the result of a PIL filed in the 1980s. Similar plans have since been drawn up elsewhere. In Calcutta, a fishing co-operative that has managed the wetlands that recycle the city's waste since 1961, filed and won a PIL to halt constructions that were diminishing the size of the wetlands—which also provide fish for the local population (Development Associates 1996). In addition, individual citizens have filed suits in the State High Courts and the Supreme Court of India against local urban bodies for neglecting mandatory responsibilities—such as ensuring that industrial land-use does not increase the incidence of pollution in city master plans. One outcome of such a PIL is the movement of polluting industries out of Delhi. Citizens' groups have also used PIL on the grounds that the local government is failing to stop squatters from defecating on public roads. Environmental groups in Mumbai obtained an eviction order against squatters living in Borivali National Park, in an effort to protect the ecosystem. Having recourse to the law has become a way of protecting the urban environment when government systems have failed. This is an important dimension of the urban environmental movement in India, and the examples cited here are by no means exhaustive. Some of the PILs filed by citizens' groups have also been directly or indirectly detrimental to the interests of the poor. Moreover, as we have already seen, legal initiatives often have only limited impact in terms of redressing environmental wrongs.

Grassroots protests for environment protection

Grassroots protest or resistance movements are an important means by which affected populations can make their voices heard and get their message across to policy makers. In India, there are many well-known rural environmental movements that protest against the diversion of essential resources to urban and industrial areas and the dumping of urban and industrial waste in rural areas. Other protests take the form of direct action. For instance, People for Clean

Air in Delhi asked the government to act against industrial and vehicular pollution. In Udaipur (known as the city of lakes) local citizens have organized under the Lake Protection Committee against the pollution and eutrofication caused by tourist developments on the lakefront. The Committee managed to stop a new hotel being built (Anand 1994). In Bhopal, citizens' groups and academic/research institutions joined together to protest against the pollution of Lake Shahpura. The lake, an important source of drinking water, was subsequently cleaned (Development Associates 1996). There are many similar examples throughout the country.

Community-based efforts

There is a long history of community-based efforts in India to manage the urban environment. One successful NGO experiment to manage solid waste disposal is Exnora in Chennai. This started in 1989 when citizens, concerned about deteriorating environmental conditions, drew up an action plan to collect garbage. New containers were placed in the street and an awareness-raising campaign was organized. The rag-pickers, renamed city-beautifiers, were given loans by Exnora to purchase tricycles for door-to-door garbage collection and street cleaning. They received monthly salaries from the residents, from which they repaid the loans. Today, the city has 1,500 Exnora units, each servicing 75,000 families or 450,000 people. Many Exnoras have now branched into other environmental activities, such as monitoring waterways, desilting canals, planting trees and harvesting rainwater (Chennai suffers from severe water shortages). They also run environmental education programmes in schools and public information campaigns on the environmental impacts of industrial development, upgrading slums and converting degradable waste into compost. Exnora projects are thus multisectoral and address a wide range of issues (Anand 1999).

Other cities have started similar activities. In Vadodara City in Gujarat, Baroda Citizens' Council, a local NGO, started garbage collection in 1992, engaging local unemployed young people and rag-pickers in garbage collection at a monthly salary of Rs.300 to Rs.400 (\$7–10), paid for by the residents. Recyclable waste (paper, plastic, metal, etc.) is carried away by the rag-pickers and sold. Degradable waste is composted and the rest is dumped as landfill. With the support of USAID, this project has been extended to cover 20,000 households (100,000 people) (Cherail 1994). Similar experiments are being carried out in some areas of Delhi with input from local NGOs such as Vatavarn (Environment) (Malik 1998).

These efforts address environmental and employment issues simultaneously, but they are limited to a few localities in a few cities.¹⁸

More numerous, and more visible in India's big cities, are the NGOs involved in community development, advocacy and human rights promotion. Organizations such as the National Campaign for Housing Rights (prevention of slum demolitions and evictions), the Self-Employed Women's Association (comprehensive actions for women's development), Youth for Unity and Voluntary Action (YUVA; slum and community organization and rehabilitation programmes) or the Society for the Promotion of Area Resource Centres (SPARC; housing promotion for the poor, social programmes and security for street children), tend to take work on many different issues affecting the lives of their constituents. While these do sometimes have a direct impact on the quality of life of the urban poor, none would be considered an attempt to implement strategies based on the four pillars of sustainable development outlined earlier. This is not surprising considering the limited resources they have at their disposal, the pressing nature of many of the other tasks they must fulfil on a daily basis, and their issue- or constituency-based approach to development.

Fragmented and localized efforts

The urban environmental movements in India have three basic approaches: concrete development activities, direct protest action and protest through litigation. All of these fit well within Local Agenda 21. In the case of development activities, the stakeholders themselves participate in the development process and the NGOs act as catalysts. But these are generally localized efforts, few in number and touching only a very small fraction of the city's population; to replicate them on a larger scale remains a problem. Moreover, the macro context in which concrete development activities take place remains unfavourable to the environment and marginalized sectors of society.

Protest movements and other forms of resistance to the prevailing development paradigm are also important, but are too disconnected to be synergetic. In addition, the protest groups engaged in political action do not convert their gains into concrete development policies and programmes. Grassroots action is hampered by internal fragmentation, lack of synergy, a disconnection between protests and spontaneous development initiatives and,

¹⁸ Private sector companies in several big cities are also taking up recycling efforts along the lines described here.

sometimes, competition among initiatives themselves. There is, therefore, a long way to go before grassroots urban development becomes sustainable.

Conclusion: An Inclusive Perspective from the South

Experience from India suggests that very little conceptual or practical research exists on sustainable cities—a term often confused with the SCP and other UN programmes. The concept of sustainable cities has not been criticized from a Southern perspective; it is viewed as purely techno-managerial in nature, with aspects such as participation and decentralized governance given lower priority than the urban environment. In India, the government has borrowed heavily in order to build urban or environmental infrastructure, originally from international aid agencies and, more recently, from the commercial sector. This creates indebtedness and, in the long run, excludes the poor from the urban development process. Some elements of the new infrastructure such as wide roads, flyovers and bridges, designed to decongest the roads and reduce air pollution, are themselves generated by the flawed development model being pursued. The government of India does not view the role of official aid agencies in this light, however, and is keen to seek funding from them.

Since the concept of sustainable cities is understood in such a limited manner, other national initiatives in India, such as poverty alleviation programmes and decentralization, are not viewed as falling within its framework. As a result, there is no synergy between these various efforts, and the lack of convergence in thinking and in action reduces their cumulative impact. (The exception is in Andhra Pradesh, where SWM and employment-generation efforts have been simultaneously addressed by the state government.)

The urban environmental movement in India is still nascent and, as we have seen, its three components—direct protests, litigation and constructive development activities (the latter usually promoted by NGOs)—are fragmented, localized and too small-scale to make a noticeable impact. Seldom do development activities address the multidimensional nature of urban development, or succeed in working at a city-wide level. Environmental and citizens' groups tend not to look at wider development issues and, therefore, their campaigns risk harming the poor. Development groups often ignore environmental issues,

while protest movements and community-based development initiatives rarely work together. Hence, the protests are not translated into policies and programmes, and the benefits of community-based development efforts are not sustainable because they fail to address the macro context.

Outstanding concerns in India

In India mainstream debates look at either urban development or at environmentally sustainable cities, and tend to overlook people-centred approaches to the subject. Urban development and economic growth are regarded as synonymous; cities are regarded as economic entities that contribute to overall economic growth. Efforts to create a clean, liveable urban environment and to reduce social inequalities are subsumed into this efficiency paradigm.

The sustainable development of cities in the South is possible only when the prime development issues, which include taking steps to protect the environment, are addressed. The issues that require immediate attention are:

- sustainable livelihoods;
- secure housing rights; and
- freedom from violence and intimidation on the basis of social identity.

Ensuring adequate provision of, and access to the following are also urgently necessary:

- public health facilities, basic education, safe and sufficient drinking water and food security;
- civic amenities in a clean, safe and healthy living environment; and
- social security programmes.

It is possible to address these concerns while protecting the environment within a favourable macro development model. The government can play a significant role in this. Some of the main requirements are (i) effective government policies to reduce inequality within cities themselves and between the rural and urban areas; (ii) democratic urban development processes that meet the needs of the disadvantaged, and in which the most disadvantaged can participate; (iii) economic growth through activities that are non-polluting and labour-intensive; (iv) a sound, participatory regulatory mechanism to check unsustainable activities; and (v) government responsibility for promoting human development.

Inclusive and synergetic approach

The approach to sustainable cities in the South has to be inclusive, placing the vision of the poor and marginalized urban sections at the centre of urban policy making. Development processes, programmes and projects need to be multidimensional and multisectoral. The term “inclusive” refers to the inclusion of all citizens and all dimensions of development—and the convergence of thinking and action on the subject. This is the only sustainable way to address the major concerns listed above, and the only way to achieve sustainable human development.

If the urban environment deteriorates, it is the poor who are most affected: development must take place in such a manner that the environment is protected. The role of the government, especially local government, is to ensure that synergies are built between development programmes and their various stakeholders—government and civil society, micro- and macro-level institutions, etc.

This is no straightforward matter, and many conflicting situations need to be addressed at once. To look at the pollution problem in isolation will not lead to a sustainable solution. For example, the improvement of urban air quality does not simply mean getting rid of polluting vehicles. It is necessary to create alternative employment for those who lose their livelihoods as a result, to develop a public transport system and to discourage the use of private vehicles.

More critical still is the cultivation of a macro development climate that is pro-people, pro-women, pro-poor and pro-environment so that achievements can be sustained. Equally important is that organizations of civil society—the protest groups, development groups and environmental groups—work together, so that each builds a holistic vision of development and does not inadvertently harm the interests of the poor.

At the beginning of this chapter, it was argued that the concept of sustainable cities rests on four pillars, all of which need to be addressed simultaneously in development processes, programmes and projects. Environmental programmes should be linked with employment, poverty alleviation and social equity programmes. Micro-level initiatives should be linked with wider strategies. Political empowerment has to be comprehensive and not only, as envisaged by the current approach to urban governance, introduced at the local level. Environmental sustainability is not just about “managing” the environment, but

also about finding a development model that does not generate unmanageable waste. This is impossible while there is such inequality between the North and the South. Inequality generates unsustainable consumption levels—too low among the poor of the South and unsustainably high among the rich of the North and South. An inclusive approach to sustainable cities in the South must address development and sustainability in a holistic manner at every level, from the global to the local.

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